

PAGE: 1

RAW SEQUENCE LISTING  
PATENT APPLICATION US/09/587,574

DATE: 11/21/2000  
TIME: 15:13:53

Input Set: I587574.RAW

This Raw Listing contains the General Information  
Section and up to first 5 pages.

ENTERED

```

1  <110> APPLICANT: Max-Delbruck-Centrum fur Molekulare Medizin
2  <120> TITLE OF INVENTION: Conductine protein and a related agent for diagnosing
3      and treating tumor illnesses
4  <130> FILE REFERENCE: 0107-026 US
5  <140> CURRENT APPLICATION NUMBER: US/09/587,574
6  <141> CURRENT FILING DATE: 2000-06-05
7  <150> EARLIER APPLICATION NUMBER: DE 197 38 205.3
8  <151> EARLIER FILING DATE: 1997-09-02
9  <160> NUMBER OF SEQ ID NOS: 10
10 <170> SOFTWARE: PatentIn Ver. 2.1
11 <210> SEQ ID NO 1
12 <211> LENGTH: 840
13 <212> TYPE: PRT
14 <213> ORGANISM: Artificial Sequence
15 <220> FEATURE:
16 <223> OTHER INFORMATION: Description of Artificial Sequence: Conductine
17     protein
18 <400> SEQUENCE: 1
19     Met Ser Ser Ala Val Leu Val Thr Leu Leu Pro Asp Pro Ser Ser Ser
20         1             5             10             15
21     Phe Arg Glu Asp Ala Pro Arg Pro Pro Val Pro Gly Glu Glu Gly Glu
22             20             25             30
23     Thr Pro Pro Cys Gln Pro Ser Val Gly Lys Val Gln Ser Thr Lys Pro
24             35             40             45
25     Met Pro Val Ser Ser Asn Ala Arg Arg Asn Glu Asp Gly Leu Gly Glu
26             50             55             60
27     Pro Glu Gly Arg Ala Ser Pro Asp Ser Pro Leu Thr Arg Trp Thr Lys
28             65             70             75             80
29     Ser Leu His Ser Leu Leu Gly Asp Gln Asp Gly Ala Tyr Leu Phe Arg
30             85             90             95
31     Thr Phe Leu Glu Arg Glu Lys Cys Val Asp Thr Leu Asp Phe Trp Phe
32             100            105            110
33     Ala Cys Asn Gly Phe Arg Gln Met Asn Leu Lys Asp Thr Lys Thr Leu
34             115            120            125
35     Arg Val Ala Lys Ala Ile Tyr Lys Arg Tyr Ile Glu Asn Asn Ser Val
36             130            135            140
37     Val Ser Lys Gln Leu Lys Pro Ala Thr Lys Thr Tyr Ile Arg Asp Gly
38             145            150            155            160
39     Ile Lys Lys Gln Gln Ile Gly Ser Val Met Phe Asp Gln Ala Gln Thr
40             165            170            175
41     Glu Ile Gln Ala Val Met Glu Glu Asn Ala Tyr Gln Val Phe Leu Thr
42             180            185            190
43     Ser Asp Ile Tyr Leu Glu Tyr Val Arg Ser Gly Gly Glu Asn Thr Ala
44             195            200            205

```

PAGE: 2

RAW SEQUENCE LISTING  
PATENT APPLICATION US/09/587,574

DATE: 11/21/2000  
TIME: 15:13:53

Input Set: I587574.RAW

45	Tyr	Met	Ser	Asn	Gly	Gly	Leu	Gly	Ser	Leu	Lys	Val	Leu	Cys	Gly	Tyr
46		210					215					220				
47	Leu	Pro	Thr	Leu	Asn	Glu	Glu	Glu	Glu	Trp	Thr	Cys	Ala	Asp	Leu	Lys
48	225					230					235					240
49	Cys	Lys	Leu	Ser	Pro	Thr	Val	Val	Gly	Leu	Ser	Ser	Lys	Thr	Leu	Arg
50					245					250					255	
51	Ala	Thr	Ala	Ser	Val	Arg	Ser	Thr	Glu	Thr	Ala	Glu	Asn	Gly	Phe	Arg
52				260						265				270		
53	Ser	Phe	Lys	Arg	Ser	Asp	Pro	Val	Asn	Pro	Tyr	His	Val	Gly	Ser	Gly
54			275					280					285			
55	Tyr	Val	Phe	Ala	Pro	Ala	Thr	Ser	Ala	Asn	Asp	Ser	Glu	Leu	Ser	Ser
56		290					295					300				
57	Asp	Ala	Leu	Thr	Asp	Asp	Ser	Met	Ser	Met	Thr	Asp	Ser	Ser	Val	Asp
58	305					310					315					320
59	Gly	Val	Pro	Pro	Tyr	Arg	Met	Gly	Ser	Lys	Lys	Gln	Leu	Gln	Arg	Glu
60					325					330					335	
61	Met	His	Arg	Ser	Val	Lys	Ala	Asn	Gly	Gln	Val	Ser	Leu	Pro	His	Phe
62				340					345					350		
63	Pro	Arg	Thr	His	Arg	Leu	Pro	Lys	Glu	Met	Thr	Pro	Val	Glu	Pro	Ala
64			355					360					365			
65	Ala	Phe	Ala	Ala	Glu	Leu	Ile	Ser	Arg	Leu	Glu	Lys	Leu	Lys	Leu	Glu
66		370					375					380				
67	Leu	Glu	Ser	Arg	His	Ser	Leu	Glu	Glu	Arg	Leu	Gln	Gln	Ile	Arg	Glu
68	385					390					395					400
69	Asp	Glu	Glu	Lys	Glu	Gly	Ser	Glu	Gln	Ala	Leu	Ser	Ser	Arg	Asp	Gly
70					405					410					415	
71	Ala	Pro	Val	Gln	His	Pro	Leu	Ala	Leu	Leu	Pro	Ser	Gly	Ser	Tyr	Glu
72				420					425					430		
73	Glu	Asp	Pro	Gln	Thr	Ile	Leu	Asp	Asp	His	Leu	Ser	Arg	Val	Leu	Lys
74			435					440					445			
75	Thr	Pro	Gly	Cys	Gln	Ser	Pro	Gly	Val	Gly	Arg	Tyr	Ser	Pro	Arg	Ser
76		450					455					460				
77	Arg	Ser	Pro	Asp	His	His	His	Gln	His	His	His	His	Gln	Gln	Cys	His
78	465					470					475					480
79	Thr	Leu	Leu	Ser	Thr	Gly	Gly	Lys	Leu	Pro	Pro	Val	Ala	Ala	Cys	Pro
80					485					490					495	
81	Leu	Leu	Gly	Gly	Lys	Ser	Phe	Leu	Thr	Lys	Gln	Thr	Thr	Lys	His	Val
82				500						505				510		
83	His	His	His	Tyr	Ile	His	His	His	Ala	Val	Pro	Lys	Thr	Lys	Glu	Glu
84			515					520					525			
85	Ile	Glu	Ala	Glu	Ala	Thr	Gln	Arg	Val	Arg	Cys	Leu	Cys	Pro	Gly	Gly
86		530					535					540				
87	Thr	Asp	Tyr	Tyr	Cys	Tyr	Ser	Lys	Cys	Lys	Ser	His	Pro	Lys	Ala	Pro
88	545					550					555					560
89	Glu	Pro	Leu	Pro	Gly	Glu	Gln	Phe	Cys	Gly	Ser	Arg	Gly	Gly	Thr	Leu
90					565					570					575	
91	Pro	Lys	Arg	Asn	Ala	Lys	Gly	Thr	Glu	Pro	Gly	Leu	Ala	Leu	Ser	Ala
92				580						585				590		
93	Arg	Asp	Gly	Gly	Met	Ser	Ser	Ala	Ala	Gly	Gly	Pro	Gln	Leu	Pro	Gly
94			595					600					605			

PAGE: 3

# RAW SEQUENCE LISTING PATENT APPLICATION US/09/587,574

DATE: 11/21/2000  
TIME: 15:13:53

Input Set: I587574.RAW

```

95      Glu Glu Gly Asp Arg Ser Gln Asp Val Trp Gln Trp Met Leu Glu Ser
96          610                      615                      620
97      Glu Arg Gln Ser Lys Ser Lys Pro His Ser Ala Gln Ser Ile Arg Lys
98      625                      630                      635                      640
99      Ser Tyr Pro Leu Glu Ser Ala Arg Ala Ala Pro Gly Glu Arg Val Ser
100          645                      650                      655
101     Arg His His Leu Leu Gly Ala Ser Gly His Ser Arg Ser Val Ala Arg
102          660                      665                      670
103     Ala His Pro Phe Thr Gln Asp Pro Ala Met Pro Pro Leu Thr Pro Pro
104          675                      680                      685
105     Asn Thr Leu Ala Gln Leu Glu Glu Ala Cys Arg Arg Leu Ala Glu Val
106          690                      695                      700
107     Ser Lys Pro Gln Lys Gln Arg Cys Cys Val Ala Ser Gln Gln Arg Asp
108     705                      710                      715                      720
109     Arg Asn His Ser Ala Ala Gly Gln Ala Gly Ala Ser Pro Phe Ala Asn
110          725                      730                      735
111     Pro Ser Leu Ala Pro Glu Asp His Lys Glu Pro Lys Lys Leu Ala Ser
112          740                      745                      750
113     Val His Ala Leu Gln Ala Ser Glu Leu Val Val Thr Tyr Phe Phe Cys
114          755                      760                      765
115     Gly Glu Glu Ile Pro Tyr Arg Arg Met Leu Lys Ala Gln Ser Leu Thr
116          770                      775                      780
117     Leu Gly His Phe Lys Glu Gln Leu Ser Lys Lys Gly Asn Tyr Arg Tyr
118     785                      790                      795                      800
119     Tyr Phe Lys Lys Ala Ser Asp Glu Phe Ala Cys Gly Ala Val Phe Glu
120          805                      810                      815
121     Glu Ile Trp Asp Asp Glu Thr Val Leu Pro Met Tyr Glu Gly Arg Ile
122          820                      825                      830
123     Leu Gly Lys Val Glu Arg Ile Asp
124          835                      840
125 <210> SEQ ID NO 2
126 <211> LENGTH: 123
127 <212> TYPE: PRT
128 <213> ORGANISM: Artificial Sequence
129 <220> FEATURE:
130 <223> OTHER INFORMATION: Description of Artificial Sequence: Partial
131     sequence of conductin protein 78-200 (rgs-domain)
132 <400> SEQUENCE: 2
133     Trp Thr Lys Ser Leu His Ser Leu Leu Gly Asp Gln Asp Gly Ala Tyr
134         1              5              10              15
135     Leu Phe Arg Thr Phe Leu Glu Arg Glu Lys Cys Val Asp Thr Leu Asp
136         20              25              30
137     Phe Trp Phe Ala Cys Asn Gly Phe Arg Gln Met Asn Leu Lys Asp Thr
138         35              40              45
139     Lys Thr Leu Arg Val Ala Lys Ala Ile Tyr Lys Arg Tyr Ile Glu Asn
140         50              55              60
141     Asn Ser Val Val Ser Lys Gln Leu Lys Pro Ala Thr Lys Thr Tyr Ile
142         65              70              75              80
143     Arg Asp Gly Ile Lys Lys Gln Gln Ile Gly Ser Val Met Phe Asp Gln
144         85              90              95

```

PAGE: 4

RAW SEQUENCE LISTING  
PATENT APPLICATION US/09/587,574

DATE: 11/21/2000  
TIME: 15:13:53

Input Set: I587574.RAW

```

145      Ala Gln Thr Glu Ile Gln Ala Val Met Glu Glu Asn Ala Tyr Gln Val
146                      100                      105                      110
147      Phe Leu Thr Ser Asp Ile Tyr Leu Glu Tyr Val
148                      115                      120
149 <210> SEQ ID NO 3
150 <211> LENGTH: 54
151 <212> TYPE: PRT
152 <213> ORGANISM: Artificial Sequence
153 <220> FEATURE:
154 <223> OTHER INFORMATION: Description of Artificial Sequence: Partial
155      sequence of conductin protein 343-396 (GSK 3)
156 <400> SEQUENCE: 3
157      Ala Asn Gly Gln Val Ser Leu Pro His Phe Pro Arg Thr His Arg Leu
158          1              5              10              15
159      Pro Lys Glu Met Thr Pro Val Glu Pro Ala Ala Phe Ala Ala Glu Leu
160          20              25              30
161      Ile Ser Arg Leu Glu Lys Leu Lys Leu Glu Leu Glu Ser Arg His Ser
162          35              40              45
163      Leu Glu Glu Arg Leu Gln
164          50
165 <210> SEQ ID NO 4
166 <211> LENGTH: 69
167 <212> TYPE: PRT
168 <213> ORGANISM: Artificial Sequence
169 <220> FEATURE:
170 <223> OTHER INFORMATION: Description of Artificial Sequence: Partial
171      sequence of conductin protein 397-465 (-catenine
172      binding domain)
173 <400> SEQUENCE: 4
174      Gln Ile Arg Glu Asp Glu Glu Lys Glu Gly Ser Glu Gln Ala Leu Ser
175          1              5              10              15
176      Ser Arg Asp Gly Ala Pro Val Gln His Pro Leu Ala Leu Leu Pro Ser
177          20              25              30
178      Gly Ser Tyr Glu Glu Asp Pro Gln Thr Ile Leu Asp Asp His Leu Ser
179          35              40              45
180      Arg Val Leu Lys Thr Pro Gly Cys Gln Ser Pro Gly Val Gly Arg Tyr
181          50              55              60
182      Ser Pro Arg Ser Arg
183          65
184 <210> SEQ ID NO 5
185 <211> LENGTH: 51
186 <212> TYPE: PRT
187 <213> ORGANISM: Artificial Sequence
188 <220> FEATURE:
189 <223> OTHER INFORMATION: Description of Artificial Sequence: Partial
190      sequence of conductin protein 783-833 (dishevelled
191      homologue region)
192 <400> SEQUENCE: 5
193      Leu Thr Leu Gly His Phe Lys Glu Gln Leu Ser Lys Lys Gly Asn Tyr
194          1              5              10              15

```

PAGE: 5

RAW SEQUENCE LISTING  
PATENT APPLICATION US/09/587,574

DATE: 11/21/2000  
TIME: 15:13:53

Input Set: I587574.RAW

```

195      Arg Tyr Tyr Phe Lys Lys Ala Ser Asp Glu Phe Ala Cys Gly Ala Val
196                20                25                30
197      Phe Glu Glu Ile Trp Asp Asp Glu Thr Val Leu Pro Met Tyr Glu Gly
198                35                40                45
199      Arg Ile Leu
200                50
201      <210> SEQ ID NO 6
202      <211> LENGTH: 2825
203      <212> TYPE: DNA
204      <213> ORGANISM: Artificial Sequence
205      <220> FEATURE:
206      <223> OTHER INFORMATION: Description of Artificial Sequence: cDNA of
207      conductine protein
208      <400> SEQUENCE: 6
209      cagccgttcg cgatggattt cggggccacc cggaggccga ggcgtccggc tccccaaagg 60
210      agagctttgc tgtaaaagag aggaggtca catgagcccc tgctgactta agagagacca 120
211      agccgattgc tgagaggaac tggaagaaga aaaaggagga ggagggaaaa aaagcaaaac 180
212      aaaatccaaa ctcaagtgaga cgctctccct caccatgagt agcgcctgtg tagtgactct 240
213      ccttccagat cccagcagca gcttccgcga ggatgctccg cggcccccggt ttccgggaga 300
214      agaaggggag accccaccgt gtcagcctag tgtgggcaag gtccagtcca ccaaacctat 360
215      gcccgtttcc tctaattgcta ggcggaatga agatggactg ggggagcccc aggggaggggc 420
216      ctcccccgat tcccccttga ccagggtggac caagtcttta cactccttgt tgggtgacca 480
217      ggatggtgca tacctcttcc ggactttcct ggagaggagg aaatgtgtgg atacgctgga 540
218      cttctggttt gcttgtaatg ggttcaggca gatgaacctg aaggatacca aaactttgcg 600
219      agtggccaaa gcaatctata agaggtacat tgagaacaac agcgttgtct ccaagcagct 660
220      gaagcccgcc accaagacct acatacgaga tggcatcaag aagcaacaga tcggctcggg 720
221      catgtttgac caggcacaga ccgagatcca ggcagtgatg gaggaaaatg cctaccaggt 780
222      gttcttgact tctgacattt acctggaata tgtgaggagt gggggggaaa acacagctta 840
223      catgagtaac gggggactgg ggagcctaaa ggtcttatgt ggctacctcc ccaccttgaa 900
224      tgaagaagag gagtggacgt gtgccgacct caagtgcaaa ctctcaccca ccgtggttgg 960
225      cttgtccagc aaaactcttc gggccaccgc gagtgtgaga tccacggaaa cagctgaaaa 1020
226      cggattcagg tccttcaaga gaagcgacct agtcaatcct tatcacgtag gttccggcta 1080
227      tgtctttgca ccagccacca gcgccaacga cagcgagtta tccagcgacg cactgaccga 1140
228      cgattccatg tccatgacgg acagttagct agatggagtc cctccttacc gcatggggag 1200
229      taagaaacag ctccagagag agatgcatcg cagtgtgaag gccaatggcc aagtgtctct 1260
230      acctcatttt ccgagaacct accgcctgcc caaggagatg acgcctgtgg aacctgtctg 1320
231      cttcgccgcc gagctcatct ccaggctgga gaaactgaaa ctggagctgg aaagccgcca 1380
232      tagtctggag gagcggctgc agcagatccg ggaggatgaa gaaaaggagg ggtctgagca 1440
233      ggccctgagc tcacgggatg gagcaccggt ccagcaccct ctggccctcc taccctccgg 1500
234      cagctatgaa gaggaccac aaaccatttt ggacgaccac ctctccaggg tcctcaagac 1560
235      ccccggtgt caatcccctg gtgtgggtcg ctacagccca cgggtcccgt cccccgacca 1620
236      ccaccaccag caccaccacc atcagcagtg tcataccctt ctttcgactg ggggcaagct 1680
237      gccccccgtg gctgcttgcc ccctccttgg aggcaagagc ttcttgacca aacagacgac 1740
238      gaagcacgtt caccaccact acatccacca ccacgccgtc cccaagacca aggaggagat 1800
239      cgaggcagaa gccacacaga gagtccgctg cctctgtcct gggggaacag attattattg 1860
240      ctactccaaa tgcaaaagcc acccgaaggc tccagagccc ctgcctgggg agcagttttg 1920
241      tggcagcaga ggtggtacct tgccaaaacg gaatgcaaag ggcaccgaac cgggtcttgc 1980
242      actgtcggcc agggatggag ggatgtccag tgcagcgggg ggcccccagc ttcttgggga 2040
243      agaaggagac cggtcacagg atgtctggca gtggatgttg gagagtgagc ggcagagcaa 2100
244      gtccaagccc catagtggcc aaagcataag aaagagctac ccattggagt ctgcccgtgc 2160

```

· PAGE: 6

**VERIFICATION SUMMARY**  
**PATENT APPLICATION US/01587,574**

DATE: 11/21/2000  
TIME: 15:13:53

Input Set: **I587574.RAW**

Line ? Error/Warning

Original Text

-----